data to estimate the value of a drug for an indication. We assessed analyses' compliance with several criteria recommended by the Panel on Cost-Effectiveness in Health and Medicine. **RESULTS:** Of 115 dossiers submitted, 55% included economic analyses. We found 106 analyses supporting economic claims for drugs on specific indications. Of these, 89% adopted a payer perspective, 48% were cost minimization analyses, 58% had time horizons < 2 years. 14% applied discounting; 20% stated all assumptions clearly; 37% compared relevant alternatives; 21% reported resource quantities separately, 13% productivity losses, and 26% incremental results; 42% performed some form of sensitivity analysis; 18% mentioned caveats to conclusions. Analyses of high-cost products were more likely to be cost effectiveness or cost consequence analyses (OR = 12.5, p = 0.004) and to compare relevant alternatives (OR = 6.4, p = 0.008). Analyses of me-too drugs were less likely to state all assumptions clearly (OR = 0.23, p = 0.016), compare relevant alternatives (OR = 0.09, p = 0.0001), report sensitivity analyses (OR = 0.19, p = 0.006) or incremental results (OR = 0.28, p = 0.03). No other significant differences found. **CONCLUSIONS:** Most AMCP-Format dossier submissions included economic analyses, but these had low levels of compliance with accepted recommendations. Analyses of me-too drugs appeared particularly prone to bias.

FP4

NATIONAL ESTIMATES AND ASSOCIATED FACTORS OF ANTIPSYCHOTIC USE IN AMBULATORY CARE FROM 1996 TO 2003

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OBJECTIVES: Conventional typical-antipsychotics are less tolerated than newer atypical-antipsychotics. Concerns about using antipsychotic-combinations also exist. However, national studies of antipsychotic use at United States (US) ambulatory visits are limited. The study objectives were to determine national estimates and associated factors of antipsychotic (typical, atypical, and combination) use. **METHODS:** Retrospective analyses were conducted of the combined 8-year data (1996–2003) of office-based National Ambulatory Medical Care Survey (NAMCS) and outpatient National Hospital Ambulatory Medical Care Survey (NHAMCS). Mental-health disorder visits with ICD-9-CM diagnostic-codes (290–319, 331.0x) were classified into three mutually exclusive visit-groups: typical, atypical or combined-antipsychotic. Sample estimates were weighted and projected to the population with 95% confidence intervals. Multivariable logistic regression was used to determine significant factors associated with typical- versus atypical-antipsychotic mention at visits. **RESULTS:** About 47.7million visits or 0.83% (95%CI:0.73–0.93) of all adult visits had a mental-health disorder and an antipsychotic mention: atypical (30 million visits), typical (15.3 million visits), and combination (2.4 million visits). Major antipsychotics across visit-groups were: typical (haloperidol, thioridazine, fluphenazine); atypical (risperidone, olanzapine, quiteapine); and combination (haloperidol, risperidone, olanzapine). Compared with typical-, the likelihood of atypical-antipsychotic visits increased over time. More typical- and combination- versus atypical-antipsychotic visits (30% and 37% vs. 7%) included medications to treat extrapyramidal side effects (EPS). In multivariable logistic-regression analysis, controlling for gender, schizophrenia-diagnosis, and behavioral-treatment; age greater than 40 versus 18–40 years (odds-ratio, OR, 0.65, 95%CI:0.49–0.85) and nonprivate insurance reimbursement-sources significantly decreased while comorbid depression (OR, 1.9, 95%CI:1.23–2.85), and bipolar-disorder (OR, 2.0, 95%CI:1.27–3.24), significantly increased the likelihood of atypical- relative to typical-antipsychotic mention at visits (p < 0.05). **CONCLUSIONS:** Although combination-antipsychotic visits were low, 37% of these visits included medications to treat EPS. Atypical-antipsychotic use was more likely at visits by younger patients, with comorbid diagnoses (depression, bipolar-disorder), and private insurance reimbursement-source. This highlights important case-mix factors of antipsychotic use warranting attention in US ambulatory care to guide formulary-decisions.

PATIENT-REPORTED OUTCOMES II

PR5

VALIDATION OF THE HYPERPIGMENTATION TREATMENT SATISFACTION QUESTIONNAIRE (HPTSQ)

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OBJECTIVES: To refine and evaluate the validity and reliability of the Hyperpigmentation Treatment Satisfaction Questionnaire (HPTSQ). The HPTSQ was designed to measure medication treatment satisfaction for subjects with hyperpigmentation, either melasma (pregnancy mask) or solar lentigines (age spots). **METHODS:** All analyses were conducted on data from a cross-sectional sample of subjects who reported having hyperpigmentation and completed the HPTSQ online. **RESULTS:** A total of 635 respondents (573 with solar lentigines and 62 with melasma) completed the HPTSQ. Factor analysis, Item Response Theory (IRT) and traditional psychometric analyses were used to select the 26 items in five factors/ domains from an initial pool of 38 items. These five domains had the following properties: 1) Efficacy—7 items, á coefficient 0.96; 2) Side Effects—5 items, á coefficient 0.95; 3) Physical Properties—5 items, á coefficient 0.88; 4) Convenience—5 items, á coefficient 0.87; and 5) Overall Satisfaction—4 items, á coefficient 0.93. Domains 1, 3, 4, and 5 showed strong test-retest reliability (intra-class correlations 0.77–0.87), while Domain 2 had an ICC of 0.44 (0.52 for subjects reporting side effects at both baseline and follow-up). All domains of the HPTSQ showed strong construct validity when correlated with related domains on three comparable patient-reported instruments. Based on level of treatment satisfaction, all domains of the HPTSQ showed strong known-groups validity (p < 0.01), except Domain 2 (Side Effects). **CONCLUSIONS:** The 26-item HPTSQ is a psychometrically sound and valid measure of solar lentigines and melasma subjects' treatment satisfaction with medication. Responsiveness testing of the HPTSQ should be conducted in a prospective clinical trial.

PR6

VALIDATION OF THE WORK PRODUCTIVITY QUESTIONNAIRE: RESULTS OF THE MATRIX STUDY

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OBJECTIVE: To determine the validity and sensitivity to change of the Work Productivity Questionnaire (WPQ) in a large, national sample of participants in the Multicenter Assessment of Transdermal Therapy in Overactive Bladder with Oxybutynin (MATRIX). **METHODS:** The WPQ is an 8-item subset of the Work Limitations Questionnaire (WLQ) which measures the

degree to which health problems interfere with ability to perform job roles. The WPQ includes physical, mental (concentration), time (interruptions and adherence to schedule) and output (ability to handle workload) scales and a WPQ Index is computed to estimate overall productivity loss. In MATRIX, WPQ scores were compared to the King's Health Questionnaire (KHQ), a validated OAB-specific quality of life (QOL) instrument. We examined the relationship between WPQ scores and conceptually-related KHQ domains at baseline, and the sensitivity of the WPQ to change in related KHQ measures at 3 months. **RESULTS:** A total of 1112 employed OAB patients were enrolled in MATRIX, from 327 US sites. The number of responses available for each scale at baseline were: time (n = 830, 75%); physical (n = 866, 78%); mental (n = 818, 74%); output (n = 814, 73%). A WPQ Index was computable for 740 participants. Spearman correlations between the KHQ physical limitations domain and the WPQ physical scale was 0.297, and between the KHQ role limitations and WPQ index score was 0.356. The WPQ appears to be sensitive to change over time, with WPQ physical scale scores and KHQ physical limitations score both decreasing at three months and the WPQ Index and KHQ role limitations also both decreasing at three months. **CONCLUSION:** Results suggest that the WPQ is a valid measure of work productivity in patients with OAB.

PR7

RISK INDICATORS FOR SELF-REPORTED JOINT PAIN AND MOTION LIMITATION OUTCOMES IN HEMOPHILIA PATIENTS-THE HEMOPHILIA COST AND IMPACT OF DISEASE STUDY-PART V

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OBJECTIVES: To assess risk indicators for self-reported joint pain and motion limitation outcomes in hemophilia patients. **METHODS:** The Hemophilia Utilization Group Study (HUGS) examines prospectively the cost and burden of hemophilia, including arthropathy, quality of life, and economic impact in patients aged 2 to 65. Parents/patients completed a standardized interview, including factor use patterns and assessment of joint pain and motion limitation. Clinical chart reviews were performed to identify the presence of inhibitor antibodies and hemophilia severity. Logistic regression was used to evaluate the association between the factors from the Health Behavioral Model (predisposing, enabling, need, and health behavior) and the likelihood of joint pain or motion limitation. **RESULTS:** Of the 128 patients with complete outcome data, 70(55%) were adults, 32(25%) reported joint pain most or all the time, 49(39%) reported severe motion limitation in at least one joint. Mean age was 23.8 (16.2) years. Risk indicators associated with joint pain were: 1) predisposing: increasing age (OR = 1.1; 95% CI = 1.03, 1.1); parent/patient not married/without partner (OR = 5.7; 1.8, 18.3), and 2) enabling: increasing number of problems getting care at the hemophilia treatment center (OR = 1.9; 1.03, 3.6). No association was found in need (ever had inhibitor) and health behaviors (use of factor). Risk indicators associated with severe motion limitation were: 1) predisposing: increasing age (OR = 1.1; 95% CI = 1.07, 1.2); parent/patient not married/without partner (OR = 3.9; 1.3, 12.2); severe hemophilia (OR = 21.0; 2.8, 158.9). **CONCLUSION:** Increasing age, lack of a support system and more severe hemophilia are useful characteristics for clinicians to identify patients at greater risk for joint pain and limitation. Early identification of these factors, which are a major source of disability, may be helpful in avoiding decreased health status and increased medical costs. Addressing barriers to receipt of care is of particular import for those most at risk.

PR8

THE IMPACT OF ABNORMAL UTERINE BLEEDING ON HEALTH-RELATED QUALITY OF LIFE: A META-ANALYSIS

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OBJECTIVES: Abnormal uterine bleeding (AUB) affects up to 30% of women of reproductive age. The purpose of this study is to quantitatively estimate the impact of AUB on health-related quality of life (HRQoL). **METHODS:** A systematic literature review of studies reporting the impact of AUB or its treatment on HRQoL published from 1980 to 2005 was conducted from the PubMed database. We conducted a meta-analysis of eight studies providing HRQoL scores derived from the 36-item Short Form Health Survey Questionnaire (SF-36); only baseline SF-36 scores prior to treatment were analyzed. Both random-effect and fixed-effect models were created and used. The scores were compared with US national norms (weighted average across age groups 18–24, 25–34, 35–44, and 45–54, obtained from the SF-36 Health Survey Manual & Interpretation Guide). A subgroup analysis was conducted to examine whether or not the SF-36 scores differ according to the mean age of each subgroup. **RESULTS:** Women with AUB had lower SF-36 scores (worse health) in all eight subscales; the most significantly affected were Physical Role Functioning and Emotional Role Functioning subscales, which relate to work productivity and other daily activities. The scores in these two dimensions were approximately 20 points lower than the US population norms (60.3 vs. 84.0 and 62.3 vs. 81.1; highest score = 100). In 6 of the 8 subscales, the scores for AUB were below the 25th percentile of those for US national norms (Physical Functioning, Physical Role Functioning, Pain, Vitality, Social Functioning, and Emotional Role Functioning). The subgroup analysis suggested that older women had lower SF-36 scores than younger women; however, the small number of studies precludes the forming of a definitive conclusion. **CONCLUSIONS:** AUB has a significant impact on women's HRQoL. Treatment for AUB should consider improving HRQoL status.

PODIUM SESSION III

HEALTH EXPENDITURES

HE1

ECONOMIC EVALUATION OF A 90-DAY RETAIL PRESCRIPTION DRUG PROGRAM IN A PHARMACY BENEFIT MANAGEMENT SETTING

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OBJECTIVES: To evaluate the impact of a 90-day retail program on prescription drug expenditures in a pharmacy benefit management organization. **METHODS:** This study was based on prescription records from pharmacy claims database for a time period from January 1, 2003 to August 31, 2005. A retrospective cohort study design with one-year pre period and one-year post period was employed. Propensity scores were used to match the study and control clients in terms of patient and client characteristics. Per prescription cost, per member per month (PMPM) total, plan and member costs and generic utilization rate were the targeted outcomes. **RESULTS:** The study group included 25 clients (106,718 lives) enrolled in 90-day retail program, and the